

**FOCUS:**

Understand how different sediments/ materials settle in water. Students will find that sediment will be rather consistent in order, with the largest rocks settling to the bottom and the fine sand and silt at the top.

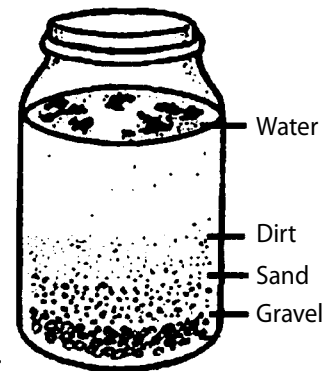
MATERIALS:

- 1 quart or larger glass or plastic jar with lid
- Gravel (rocks of various sizes)
- Water
- Soil
- Sand
- Small sea shells (optional)

TIME: 1 to 2 days

In What Order Do Materials Settle In Water?

Grades K – 8

**PROCEDURE:**

- 1) Add equal amounts of the soil, gravel, and sand until the jar is about 1/3 full.
- 2) Add enough water so that the jar is almost full.
- 3) Which of the materials inside the jar do you think will settle to the bottom? Which will be on top?
- 4) Place the lid on the jar and shake it carefully to thoroughly stir the mixture.
- 5) Stop shaking the jar and let it stand until all materials are settled and the water is somewhat clear.
- 6) Examine the materials in the jar and record the order in which they settle to the bottom.
- 7) How accurate were your predictions?
- 8) Try to explain why the materials settled out of the water in the order that they did. Do you think materials would settle in the same order at the bottom of the sea? What factors do you think would control the rate at which sediments settle to the ocean floor?
- 9) Set the jar in a place where it will not be disturbed. Notice how the water clears over time.

TEACHER INFORMATION:

Some of the factors students should consider in step 8 are: size of the particle, density of particle, shape of particle, and water currents.

Adapted from *Hands-on Earth Science Activities for Grades K-8*, P. 139

